DOCUMENT RESUME

ED 113 717 CS 202 299

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TITLE A Comparison of Four Oral Language Elicitation Probes as Used with Kindergarten, First-Grade and Second-Grade Children.
PUB DATE 75
NOTE 13p.; Paper presented at the Annual Conference of the Midwest Association for the Education of Young Children, Madison, Wisconsin, April 18, 1975

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS *Child Language; *Comparative Analysis; Early Childhood Education; *Language Development; Language Research; Language Skills; *Language Usage; Linguistic Performance; Oral Communication; *Oral Expression

ABSTRACT

The purpose of this study was to investigate differences among four oral language elicitation probes used to collect language samples from young children. Ten kindergarten, ten first-grade, and ten second-grade children provided the oral language samples. Each class was divided by sex, and five boys and five girls from each grade were randomly selected to comprise the total sample for that grade. The results of this study contradict the belief that elicitation procedures used to obtain oral language samples are variables which influence the quantity of the verbal response. By using any or all of the probes reported in this study, it appears possible to evaluate the child's oral language on the variables identified and to use the samples in further analyses of syntactic and semantic diversity, both of which contribute to oral language complexity. (RB)

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A COMPARISON OF FOUR ORAL LANGUAGE ELICITATION PROBES AS USED WITH KINDERGARTEN, FIRST-GRADE AND SECOND-GRADE CHILDREN

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Background

As a result of the increased emphasis on teaching for improvement in oral language skills, renewed by classroom experience and recent research, instruments have been developed to measure the child's language ability. A large number of these tests require responses to specific stimuli in order to measure an isolated language skill, such as expressive or receptive vocabulary, grammar, syntax or basic oral concepts (Melear, 1974). However, aside from Lee's test (1974), there are virtually no standardized tests available which measure the child's spontaneous language primarily because of the problems and issues involved in the investigation of oral language. A major concern is that performance may not reflect competence in using language. Another problem frequently encountered in obtaining language samples is the difficulty of obtaining a language sample that is not investigator-or situation-specific since no standardized collection methods have been developed. (Cowen et al, 1967; Minton, 1968; Strandberg, 1969; Cazden, 1970; Menyuk, 1971; Farr, 1972; Ahmed, 1973; Brownell and Smith, 1973.) In discussing some of the variables inherent in elicitation

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procedures, Longhurst and Grubb (1974) cite the examiner's verbal behavior, the stimulus materials presented to the subject and the type of situations in which the subject is induced to speak as possible sources of variation in respondents' language. They conclude, however, that the most efficient method of collecting an oral language sample is an adult-child interview in which the examiner questions the subject about a variety of topics.

It would appear then that in order to measure the child's oral language ability, methods must be devised which will elicit large samples of the child's language. The technique of eliciting oral language samples by having children tell stories has been reported in studies by Lee (1971, 1974). The techniques of asking children to tell about a television show or to explain a game have also been used (Moe, 1974). It was felt that by combining these techniques with a fourth probe, that carefully controlled procedures could be devised which would elicit large samples of the child's language. The content of these samples may then be analyzed for syntactic complexity according to proposals by Carroll, 1964, 1971; Endicott, 1973; Lee, 1970, 1974; Hunt, 1970; Botel and Granowsky, 1972; O'Donnell, Griffin, and Norris, 1967; Brown, 1973; and Frank and Osser, 1970.

Purpose

The primary purpose of this study was to investigate differences among four oral language elicitation probes used to collect language samples from young children.

Related to the primary purpose of this study was the identification or development of oral language elicitation probes which would 1) obtain large amounts of oral language from children, 2) require little time to

administer, 3) require no test materials except a tape recorder, and 4) require no special training to administer.

A final objective of the study was to obtain oral language samples which would be included in a data bank of language samples being compiled by the investigators.

Subjects

Ten kindergarten, ten first-grade, and ten second-grade children provided the oral language samples. Each class was divided by sex and five boys and five girls from each grade were randomly selected to comprise the total sample for that grade. The subjects were enrolled in an elementary school located in a middle socioeconomic level neighborhood in a small midwestern city.

Procedure

Subjects were interviewed individually by the examiner after preliminary instructions had been administered to a larger group. To reduce anxiety which may have been associated with leaving the classroom to talk with a stranger, the examiner informed the subjects of the four questions which would be asked, cautioning them not to discuss their answers with one another. Each subject was then asked to respond to the following four questions, each of which represents a different probe used to elicit language samples:

1. What's your favorite game? If the child did not volunteer any information other than the name of the game, he was asked to explain how the game was played and to tell why that was his favorite game.

2. What's the best thing or the most exciting thing that ever happened to you? The child was encouraged to relate a vivid personal experience and to explain why such an experience was important to him.
3. Tell me a story. The child was told that the story he told could be one that he had made up or one that he had heard or read before.
4. What's your favorite television show? The child was encouraged to tell why the program he selected was his favorite and to relate an episode which he remembered watching.

The order in which the questions were asked was rotated from subject to subject to control for practice effects.

Response time for each question was carefully controlled and limited to three minutes. To encourage the child who had not reached his three minute limit to continue talking, the examiner interjected brief verbal stimuli unrelated to the topic when the child stopped speaking. When no further response was elicited, two final questions were asked of those children who had not exceeded the time limit. The first question was, "Tell me more about_____." The second and final question was, "What else can you tell me about _____?" The subject was tactfully interrupted if he exceeded the time limit on any question.

All language samples were tape recorded, transcribed for subject and examiner responses, and keypunched for computer analysis, employing a program used in language analyses by McDaniel and Moe, 1973; Moe, 1973; Moe and Arnold, 1973; and Moe, 1974. Through computer analysis of text it is easy to obtain the following information:

1. the total number of running words in the text
2. the total number of different words
3. an alphabetical listing of all words used
4. a sorted listing of all words used based on frequency of use
5. a percentage of use figure for each word
6. average word length and standard deviation
7. number of words of one letter, two letters, etc.
8. total number of sentences
9. average sentence length and standard deviation
10. number of sentences of one word, two words, etc.

Carroll's corrected type-token ratio (TTR), a computation used to compare lexical diversity over time or among children was computed for subject response to each question. Computer printouts of the analyzed oral language samples provided the information used in a 3 x 4 factorial (3 grade levels, 4 probes) analysis of variance with repeated measures for the variables 1) type-token ratio, 2) total output (in words), 3) average sentence length, and 4) average word length.

Results

It was found that no probe was more effective in eliciting a greater diversity of words than any other procedure. There were no statistically significant differences in the mean type-token ratios among the four questions asked. This is not to say that the same words appeared in response to all four probes but rather that one might expect the subject to use approximately the same number of different words when responding to any of the probes.

Table I provides the descriptive information on the type-token ratios.

Table I about here

Table II indicates there were no statistically significant differences in the mean total word output by grade for the four probes. There were, however, significant differences between the total number of words used to answer the four questions when total output from kindergarten, grade one, and grade two were combined. Using the Neuman-Keuls Sequential Range Test to locate these differences, it was found that the probe requiring the children to tell a story resulted in significantly ($p \leq .05$) more words used ($\bar{X}=254.44$) than did the probe requiring the children to relate a personal experience ($\bar{X}=177.80$). The story telling probe also resulted in significantly more words used ($\bar{X}=254.55$) than did the probe requiring the children to tell about their favorite television show ($\bar{X}=196.65$).

Table II about here

There were no significant differences between the average sentence length or average word length produced by subjects at the three grade levels. The average sentence length was 9.08 words for kindergarten children, 9.16 words for first-grade children and 9.02 words for second-grade children. The respective average word length for the three grade levels was 3.73, 3.79, and 3.74 letters.

Answers to the four questions within the twelve minute time limit produced an average of 712 words from each kindergarten child, 986 words

from each first-grade child, and 1020 words from each second-grade child.

The ten most frequently used words were the same for kindergarten, first, and second grade. These ten words accounted for 30.29 percent of the total words used by kindergarten children, 30.23 percent of the total words used by first-grade children, and 29.38 percent of the total words used by second-grade children with the exception of one word. A listing of these most often used words appears in Table III.

Table III about here

It is possible to elicit large amounts of oral language from children within a short period of time using no devices other than a tape recorder.

Educational Implications

The results of this study contradict the belief that elicitation procedures used to obtain oral language samples are variables which influence the quantity of the verbal response. By using any or all of the probes reported in this study, it appears possible to evaluate the child's oral language on the variables identified and to use the samples in further analyses of syntactic and semantic diversity, both of which contribute to oral language complexity.

Bibliography

Ahmed, S.E., "Linguistic Analysis of Children's Speech: Effects of Stimulus Media on Elicited Samples." Master's report, Kansas State University, 1973.

Botel, Morton and Granowsky, Alvin. "A Formula for Measuring Syntactic Complexity: A Directional Effort." Elementary English. 49 (April 1972), 513-516.

Brown, Roger. A First Language: The Early Stages. Cambridge, Mass.: Harvard University Press, 1973.

Brownell, Winifred and Smith, Dennis R. "Communication Patterns, Sex, and Length of Verbalization in Speech of Four-Year-Old Children." Speech Monographs. 40 (November 1973), 310-316.

Carroll, John B. Language and Thought. Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

Carroll, John B. "Measurement Properties of Subjective Magnitude Estimates of Word Frequency." Journal of Verbal Learning and Verbal Behavior. 10 (1971), 722-729.

Carroll, J.B., Davis, P., and Richman, B. American Heritage Word Frequency Book. Boston: Houghton Mifflin, 1971.

Cazden, Courtney B. "The Situation: A Neglected Source of Social Class Differences in Language Use." Journal of Social Issues. 26 (Spring 1970), 35-60.

Cowan, P.A., Weber, J., Hoddinot, B.A., and Klein, J., "Mean Length of Spoken Response as a Function of Stimulus, Experimenter, and Subject." Child Development. 38, 191-203, 1967.

Endicott, Anthony L. "A Proposed Scale for Syntactic Complexity." Research in the Teaching of English. 7 (Spring 1973), 61-78.

Farr, Beverly P. "Oral Language Competence and Learning to Read." Viewpoints, Bulletin of the School of Education, Indiana University, 48 (September 1972), 41-49.

Frank, S.J. and Osser, H. "A Psycholinguistic Model of Syntactic Complexity." Language and Speech. 13 (1970), 38-53.

Griffith, Jerry. "Comment on a Standardized Method for Obtaining a Spoken Language Sample." Journal of Speech and Hearing Research. 13 (June 1970), 438-439.

Harris, A.J. and Jacobson, M.D. Basic Elementary Reading Vocabularies. New York: Macmillan, 1972.

Howes, Davis. "A Word Count of Spoken English." Journal of Verbal Learning and Verbal Behavior. 6 (1966), 572-604.

Hunt, K.W. Syntactic Maturity in Schoolchildren and Adults. Monographs of the Society for Research in Child Development, Serial No. 139, Volume 35, No. 6, Sept. 1970.

Kucera, H. and Francis, W.M. Computational Analysis of Present-Day American English. Providence: Brown University Press, 1967.

Lee, Laura L. "A Screening Test for Syntax Development." Journal of Speech and Hearing Disorders. 35 (May 1970), 103-112.

Lee, Laura L. Developmental Sentence Analysis. Evanston, Illinois: Northwestern University Press, 1974.

Longhurst, T.M. and Grubb, S. "A Comparison of Language Samples Collected in Four Situations." Language, Speech, and Hearing Services in Schools. 5 (April 1974), 71-78.

McDaniel, Ernest and Moe, Alden J. "High-Frequency Words Used in the Writing of Second-Grade Students from Varying Socioeconomic and Ethnic Backgrounds." Education. 93 (February-March 1973), 241-245.

Melear, John D. "An Informal Language Inventory." Elementary English. 51 (April 1974), 508-511.

Menyuk, Paula. The Acquisition and Development of Language. Englewood Cliffs: Prentice Hall, 1971.

Mintun, S. "An Evaluation of Three Stimulus Media for Eliciting Verbal Language Samples from Educable Mentally Handicapped Children." Master's thesis, Eastern Illinois University, 1969.

Moe, Alden J. "A Comparative Study of Vocabulary Diversity: The Speaking Vocabularies of First-Grade Children, the Vocabularies of Selected First-Grade Primers, and the Vocabularies of Selected First-Grade Trade Books." A paper presented at the 1974 American Educational Research Association Convention, Chicago, April 17, 1974.

Moe, Alden J. "Word Lists for Beginning Readers." Reading Improvement. 10 (September 1973), 11-15.

Moe, Alden J. and Arnold, Richard D. "The Readability of Newbery Books: A Computer-Assisted Analysis." A paper presented at the 1973 American Educational Research Association Convention, New Orleans.

O'Donnel, R.C., Griffin, W.J., and Norris, J.C. Syntax of Kindergarten and Elementary School Children. Champaign, Illinois: National Council of Teachers of English, 1967.

Strandberg, T.E., "An Evaluation of Three Stimulus Media for Evoking Verbalization from Preschool Children." Master's thesis, Eastern Illinois University, 1969.

TABLE I

TYPE-TOKEN RATIO BY PROBE AND GRADE

Level	Probe (1)	Probe (2)	Probe (3)	Probe (4)
Kindergarten	3.946	3.625	4.312	3.823
First Grade	4.297	4.642	4.123	4.473
Second Grade	4.011	4.491	4.181	4.835

TABLE II

TOTAL OUTPUT BY PROBE AND GRADE

Level	Probe (1)	Probe (2)	Probe (3)	Probe (4)
Kindergarten	193.30	143.70	218.70	151.20
First Grade	240.20	211.90	290.40	242.10
Second Grade	222.40	233.10	299.30	265.50

TABLE III

LISTING OF TEN MOST OFTEN USED WORDS
AND THEIR FREQUENCY OF USAGE

	Kindergarten		First Grade		Second Grade	
	Word	%	Word	%	Word	%
1.	and	7.37	and	7.76	and	8.87
2.	the	4.57	the	4.33	the	4.21
3.	I	2.83	then	3.09	it	2.52
4.	then	2.73	it	2.36	they	2.51
5.	it	2.44	I	2.35	a	2.08
6.	to	2.41	to	2.32	to	2.01
7.	you	2.34	he	2.25	he	1.94
8.	he	2.03	a	2.24	you	1.85
9.	a	1.99	you	1.90	I	1.72
10.	was	1.58	they	1.67	then	1.67
	Total	30.29	Total	30.23	Total	29.38

Note: The 11th most frequently occuring word on the kindergarten list was "they"; "was" was the 11th most frequently occuring word on the first grade list.